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## THERE IS GOLD IN ENGLAND.

Yes; and there are pitfalls in England, too. It is part of the object of the present paper to prevent the gold from dragging us into the pitfalls. We can have no kind of objection, commercial or geological, to the fact that gold exists among our mineral treasures; but there is much reason to apprehend the consequences of any exaggerated estimate of the quantity or diffusion of this gold. In former times, in England and in Wales, in Scotland and in Ireland, there have been periods of excitement, during which the thirst for gold has been eager and pernicious; a thirst which has been temporarily quenched, because the gold met with has been too small in quantity to pay for working. We think there are symptoms observable of a new gold-thirst. We think it not improbable that new joint-stock projects will start up, having a Californian aspect which results will not bear out; projects started, not because of the gold, but because of the thirst for gold. It is fully borne out by experience, that in a time of joint-stock excitement, for every sound legitimate project there are two worthless bubbles, which will burst as soon as the wary birds have feathered their nests. An immense sum of money has been unprofitably sunk in Devon and Cornwall mines: those two counties being almost honey-combed by shafts, and galleries, and adits. A few of the mines have returned enormous profits; many have realised small dividends; but the large majority have never returned a single sixpence to the adventurers who vested capital in them. It was the enormous profits of the select few that led to the establishment of the unprofitable many; and it would be matter for regret if a revival of this reckless spirit should take place.

A few paragraphs will enable us to state why this subject is taken up just at the present time, and why a little caution need not in any way damp legitimate enterprise. So much has been written in the Journal, as in almost all the popular periodicals, concerning gold in California and Australia, and the state in which it occurs in the diggings, that little need be said here on this point; but it bears directly on our object to consider the mode in which the pure metal is usually separated from the quartz or other rock wherewith it may be combined.

Gold usually occurs, disseminated in small quantities, either in quartz or in some rock which is very quartzose. It is found also, but less frequently, in clay-slate, limestone, granite, and other rocks, more or less combined with various metals and minerals. It is found sometimes among sands or gravels, caused by the disintegration of the parent rock; and sometimes

in true mineral veins. In the gold countries known until within the last seven years, the chief supply was obtained by washing the sands which had been formed by the crumbling of the gold-bearing strata; but in California and Australia, digging or mining into the solid rock has been attended with very profitable results. Where auriferous veins are merely disseminated in a crystalline rock, such as quartz, the quantity is seldom sufficient to pay the expenses of working. The 'nuggets,' which we hear so much about, can hardly be said to form parts of real veins; they seem more like isolated fragments, the very isolation of which renders it difficult for the diggers to find them. In so far as respects our present subject, however, the most interesting ore is that which, whether quartz or any other, is spread abroad in millions of acres, and which contains only a few ounces of gold in a ton of rock. For such rock, it is necessary, first, that the mass be ground to a fine state; and then, that it be treated chemically, to separate the morsel of precious metal from the huge bulk of useless, or nearly useless rock.

The crushing of the rock has until now been generally conducted in a very clumsy manner, owing to the scarcity of machinery in most of the gold districts. Rolling-stones, rolling-cylinders, and stampers of various kinds, are the obvious means; but rude substitutes are much more general. In one of the mines of Chili, the crushing is effected by means of two stones; the under one about three feet in diameter, and slightly concave on the top, and the other a sphere about two feet in diameter; the sphere has two iron plugs fixed in it, to which is secured, by lashings of hide, a transverse horizontal pole of wood, about ten feet long; two men, seated on the extremities of this pole, work it up and down alternately, so as to give to the upper stone a sort of rolling motion, sufficient to crush and grind the materials placed beneath it. Where water-power and ordinary wheel-work can be procured, the stamping-mill is often used in crushing ore; such a mill consists of a number of heavy wooden pestles, each shod at the lower end with a large mass of iron; the ore is placed in a kind of trough, in which the bottoms of the pestles also work; and as the water-wheel is so adjusted as to lift and to let fall each pestle in succession, there is a succession of heavy blows which suffice to crush the ore. Sometimes the crushing-mill is used: this consists of rollers placed at a short distance apart, and kept in motion by a water-wheel, or by some other power: the ore is put into a hopper, from whence it falls into the space between the rollers; and it can only pass through this space by being previously crushed by the pressure.

The chemical treatment, for separating the gold when

the ore has been crushed, is different according to the ratio of gold contained; but that which is most important is amalgamation—a process depending upon the affinity of gold for quicksilver. One mode of amalgamating adopted in the gold districts is as follows: the ore, having been pounded fine, is washed, to separate as much as possible of the light stony matter. This is done either with a machine called a sweep-washer, or more simply by placing the pounded ore in a shallow vessel with two handles; such a vessel, when immersed in a tub of water or a running stream, and made to rotate, separates the lighter from the heavier particles. The residue left from the washing is dried and mixed with a sufficient quantity of mercury to amalgamate the gold. To favour this amalgamation, a gentle but long-continued heat is applied to the mass, at the end of which time the chemical union has taken place, the quicksilver having drawn to itself all the golden particles. The fluid amalgam thus produced is pressed through a skin of leather, which separates a considerable portion of the quicksilver, leaving it ready for use a second time. One of two chemical processes, called cupellation and quartation, separates the gold from the rest of the quicksilver; and thus the precious metal is isolated from all its coarser companions. When the ore is very argentiferous, or valuable rather for the silver than the gold which it contains, a modified form of this amalgamating process is adopted.

Now the sum and substance of the 'gold in England' excitement is simply this: that by an improved mode of crushing and amalgamating, English ores may probably be worth working, which by any former process would yield too little gold to pay the expense. It appears that Mr Calvert, a gentleman well acquainted with the gold-geology of Australia, has written a volume on the subject of 'gold in Britain,' just about the time when Mr Berdan, an engineer of New York, has invented a new ore-crushing machine. We are not exactly aware whether the book or the machine appeared first; but both have been instrumental in bringing about the present state of active inquiry and eager anticipation. We must say a little both of the volume and of the machine.

There is something of the prophetic glance of science in these matters. When Sir Roderick Impey Murchison was in Russia, he minutely studied all the circumstances connected with the occurrence of gold in the Ural Mountains: the kind and size of grains, the state of the neighbouring rock, and the altitude at which that rock is principally found. He concluded that the auriferous sand—the earthy matter containing the golden particles—resulted chiefly from the disintegration of a slaty kind of rock. Some years afterwards, when the geology of Australia had to a small extent become known, Sir Roderick made one of those sagacious inferences, or reasonings from analogy, which seem to belong of right to the true man of science. He saw, in the direction of a mountain-chain, in the nature of the rock, and in the prevailing conformation of the country, so many analogies between the south-eastern quarter of Australia and the Ural district of Russia, that he boldly propounded the opinion, that gold would be found in Australia. This was some considerable time before Mr Hargreaves astonished Sydney, and then astonished the world, by galloping into the Australian metropolis with a nugget in his pocket from the Turon.

Now, what Mr Calvert is aiming to do, is to carry Sir Roderick's analogy still further, by applying it to England as well as to Australia. He says, in effect, to the great geologist: 'You have yourself, in the Silurian

system, so admirably described in your former works, an analogue to the Silurian system of the Ural: why not extend your gold-prophecy, so that it may include Britain?' Mr Calvert has laboured with great industry to collect every possible evidence of the existence of gold in the British islands; and it is really surprising how extensive such evidence has become. In more than half the counties of England, in nearly all those of Wales, and in many in Scotland and Ireland, gold is known to have been found at one period or other. There is proof that a few of these spots were known to and worked by the Romans; while others, it is equally plain, were busily examined during the mediæval period. That those spots have not lately been mined for gold, is no proof that the gold is not present; for the clumsy manipulations may have been such, that all the gold actually obtained would not more than just pay the expense of working. Such was the case at the Wicklow gold-mines in Ireland. A story goes that, 'once upon a time,' about the year 1770, an old schoolmaster in Wicklow county was heard to talk a good deal about golden treasures, and was believed to wander about mysteriously at night: he married a young wife, and one consequence of his marriage was, that the secret got abroad—he had found a spot containing a good deal of gold. Whether the schoolmaster's story were a fact or a myth, the subject was not seriously taken up until 1796, when a man picked up nearly half an ounce of very pure gold. The effect was prodigious. Young and old, male and female, rushed to the spot (a mountain called Croghan Kinshela), and began grubbing among the earth for bits of gold. It was calculated that the country people picked up £10,000 worth of gold before the government entered upon the consideration of the subject. A Mr Weaver was then appointed to superintend the searchings and workings, and to apply system and science to the matter; but when Mr Weaver sent in his balance-sheet, it shewed a greater expenditure than receipt, and so the Wicklow gold-mines were abandoned. Such appears to have been the case in all the four portions of the United Kingdom. The doubt has not been concerning the existence of the gold, but whether the quantity were such as to pay for the expense of working. Mr Calvert takes his readers about from county to county, shewing them, by the aid of his own Aladdin's lamp, the golden treasures which lie beneath our feet; and certainly the sight is glittering and attractive. Still, the commercial question remains—the cost of procuring. If there be nuggets, the size of the nuggets must tell the story for them; but if there be only a few ounces of gold disseminated in a ton-weight of quartz or other rock, will those few ounces bear the charge of mechanically and chemically treating the ton of rock, so as to separate the precious morsel from the ruder mass?

This brings us at once to the subject of the ore-crushing machines—the means of liberating what little gold there may be in a mass of rock. It is impossible to glance over the advertising columns of the *Mining Journal*, and similar works, without seeing that these machines are now busy agents in the matter. One inventor points out the excellence of his stampers; another, of his cylindrical rollers; another, of his conical rollers; and so forth—each one claiming, of course, to be better than all the others. We are placed under no sort of necessity for expressing an opinion concerning the relative merits of the various machines: it will suffice to notice briefly what is now being done, or tried, or planned, especially in relation to one particular machine, towards which the Devon and Cornwall mining companies are just at present looking with very eager eyes.

It appears that Mr Berdan, connected with a large engineering firm at New York, had his attention directed to the subject of the quartz in California; the quantity of which is immense, but the profitable

working of which depends upon the invention of some more efficient apparatus than any hitherto in use. He sent engineers to California to examine the actual working of the existing machines, and the qualities requisite for efficient working. The result of his inquiries was the invention of a new machine, in which the mechanical and the chemical processes can be going forward at one time. Berdan's Gold-ore Pulveriser, Washer, and Amalgamator, was patented in 1852, and was first seen in London in October 1853. It was set up in an engineering establishment in the City Road, and has gone through a continuous series of trials down to the period when this paper is being written. These trials have been instituted in part by such of the Californian and Australian gold companies as have offices and officers in London; but still more extensively by the Devon and Cornwall and Welsh companies, having copper, or tin, or lead mines. The objects in view in all these trials are two—to ascertain how much gold exists in a ton of ore, and to determine the expense at which the extraction can be effected.

The machine itself, be its efficacy what it may, is certainly remarkable. A huge rotating basin, with two huge balls rolling about in it, quicksilver within it, water trickling into it, and fire beneath it—altogether a strange combination of the mechanical and the chemical. The machine is intended, as we have said, to perform at one operation the pulverising, washing, and amalgamating of such ores as contain a little gold, with especial regard to the recovery and retention of every atom of the precious metal so contained. The basin, which forms the primary part of the apparatus, is made of iron, very strong, and about 7 feet in diameter. It rotates on an axis; but this axis, instead of being vertical, as might be expected, is inclined. In this basin are two monster cast-iron balls, such balls as would take an artilleryman's breath away: the smaller measures about 24 inches in diameter, and weighs about 20 hundredweights; the larger is 34 inches in diameter, and weighs 50 hundredweights. Under the basin, and attached to and revolving with it, is a conically formed furnace. When operations are about to commence, fire is kindled in the furnace beneath the basin; quicksilver is poured into the basin; the ore is thrown in in lumps; and the basin is made to revolve. Hand or horse, or water or steam power would suffice, so far as the principle is concerned; the details would be determined according to the circumstances of each case. Now the movement of the balls, owing to their difference in size, and to the obliquity of the axis of the basin, becomes very peculiar; they appear to be making a perpetual but ineffectual attempt to ascend the curved incline, and to roll down again by their own gravity; they combine a sort of spiral with a rotating motion, and the combination is found to be peculiarly effective in crushing the ore which is in the basin. The smaller ball does not so much crush the ore, as affect the peculiar movements of the larger. The actual crushing is effected at the point of contact between the larger ball and the basin; and at this particular point the ore is immersed in quicksilver. Directly, therefore, the little gold particles become isolated from the earthy particles, by a crushing which reduces the whole to a fine powder, the quicksilver seizes upon the gold, and forms with it an amalgam or chemical compound, which remains in a state of proud exclusiveness from the baser substances. This is aided by two other elements in the apparatus: the furnace, by heating the quicksilver, renders its affinity for gold greater; while a streamlet of water, which falls into the basin from above, forms a thin paste or mud with the refuse power which rises to the top of the quicksilver, and flows off through openings just below the rim of the basin. This paste is called, in the technical language of the metallurgists, tailings; and it is spoken of as a great point in Berdan's

machine, that the tailings contain scarcely an atom of gold. In some cases, where ore has been prepared by the clumsier machines of earlier invention, the tailings have yielded as much gold by Berdan's process, as had been before obtained from the ore. Some of the machines have two, and some even four basins, with a due quota of furnaces and balls. The four-basin machines are of immense size, and give one a striking idea of the power of the apparatus, accompanied as it is by a kind of roaring sound due to the movements of the ponderous balls. The prices of the complete apparatus are, L.650, L.1250, and L.2400, according as it comprises one, two, or four basins—prices which sufficiently shew how large and important the machine must be. It is estimated that a machine with four basins will treat forty tons of ore per day, with fifteen horse moving-power.

Professor Ansted wrote to the *Times* in December 1853, to detail the results which he had obtained in a series of experiments on the Berdan machine, the apparatus having been placed at his disposal by Mr Berdan for that purpose. There were two series of operations: the crushing and amalgamating of certain Californian and English ores supposed to be auriferous, conducted by Professor Ansted himself; and the ultimate analysis of the waste from each sample, conducted by Mr Henry, a distinguished metallurgic chemist. It would be out of place to detail all the experiments here; but a few notices may be interesting. About a year ago, 100 tons of quartz were sent over to England from California, belonging to the Agua Fria Mining Company; there was barely a trace of visible gold in it; but the company wished to determine whether it was really worth working or not. Ten tons of it were purchased by the Crystal Palace Company, for deposition at Sydenham; and from this portion Professor Ansted obtained half a ton for purposes of experiment.

The feeding of the machine with this quantity occupied about an hour and a quarter. When the quartz had passed into the basins, the latter were rotated at the rate of about twenty revolutions in a minute, and ten gallons of water were introduced into each basin in a minute. The ore or quartz was previously ground to a very fine powder. The result of the analysis was, that there were 4 ounces, 4 pennyweights, 21 grains of fine gold, worth L.17, 18s. 3d., in a ton of the quartz; and from a subsequent analysis of the waste or tailings, it was found that so little gold was contained therein, that 95·8 per cent. of all the precious metal had been preserved by the action of the machine. In another experiment, Professor Ansted selected some of the 'gossan' which occurs in the copper lodes of some of the Devonshire mines, and which presented nothing like an auriferous appearance; nevertheless, the analysis brought out 1 ounce, 12½ pennyweights of gold to the ton of gossan, nearly, but not absolutely pure. The waste contained about 7 per cent. of the gold. In comparing the relative advantages of this and of other methods of crushing and amalgamating, Professor Ansted awards the superiority to Mr Berdan's in these three particulars: that it separates and preserves a much larger percentage of whatever gold may happen to be contained in the ore; that it requires no skilled labour to work it; and that it affords easy means of preventing the speculation which is apt to occur when the working of other apparatus gets into the hands of dishonest persons. He states, finally, that when ore contains even only half an ounce of gold to the ton, Berdan's apparatus will work advantageously.

Cornwall and Devon companies are now speculating on these two questions: how much gold is contained in the 'gossan' and 'mundic' found in abundance in most copper and tin mines; and how small a percentage will pay for the expense of working. In other counties, there are pyrites and other minerals, instead of gossan and mundic, known to contain gold; and to those other



minerals, attention is being directed. The research is quite a legitimate one. Our only fear is, that if even moderate success should result, it may lead to the formation of numerous bubble-companies. These are the pitfalls into which 'Gold in England' may drag us.

#### ABOARD A SPERM-WHALER.

WE daresay the reader is sufficiently familiar with the many-times-told story of the Greenland whale-fishery, but we may be permitted to doubt whether he knows much about the sperm-whale, and its capture in the far-off South Seas. We therefore invite him to accompany us on board a whaler, on its cruising station—and to do this he need not quit his cushioned arm-chair by the parlour fire—and we will shew him the whole art and mystery of capturing the sperm or cachalot whale.

But before stepping on board, it may be as well to say a few words about the South-sea whalers and their equipment. These vessels are not old double-sided tubs like the Greenlandmen, but smart, well-formed, thoroughly rigged ships and barques of 300 to 400 tons, manned by a crew of which at least three-fourths are prime A. Bs. These ships make voyages which frequently occupy three years, and which call into exercise the utmost degree of nautical skill, both scientific and practical. During this prolonged voyage, the mariners generally make the acquaintance of foreign people of all colours and all degrees of civilisation, in the South Sea Isles, the coast of South America, the Indian Archipelago, &c., and find abundant exercise for every manly virtue—courage, endurance, patience, and energy, all being absolutely requisite, together with no small amount of real talent on the part of the commanding-officers. The South-seaman surpasses all merchant vessels in the very romantic nature of its service. It roves round the globe; and in the vast Pacific Ocean sails to and fro, and from island to island, for years at a spell. The crew employed in such a service, if they only possess the ordinary intelligence of seamen, cannot fail to have their powers of observation sharpened, their reasoning faculties called into exercise, and their whole mental development stimulated. Accordingly, sperm-whalers are remarkably shrewd, intelligent men; close observers of the phenomena of nature so liberally exhibited in their ocean pathways; and altogether noble specimens of the British seaman.

On the deck of a sperm-whaler, there is a platform to receive the portions of the whale taken on board, and at the mainmast-head are strong pulleys, called the cutting blocks and falls, which are used to hoist the blubber, &c., on board by aid of the windlass. There is also on deck a square brick erection, a little abaft the foremast, made to support a couple of great iron caldrons, called *try-pots*, in which the blubber is boiled. Adjoining them is a copper cooler; and every possible precaution is adopted to guard against accidents from fire. The number of casks carried by a South-seaman is very great, and the sizes vary up to nearly 350 gallons. The crew generally have abundance of fresh water till the cargo is nearly full; and besides the casks, there are four large iron tanks. Indeed, we have been informed that recently the South-seamen have been entirely fitted with iron tanks for the oil, and carry no more barrels than are requisite for the supply of fresh water, which in some instances is also kept in iron tanks.

On a somewhat similar system to that adopted in the Greenland trade, the officers and crew of South-seamen are paid for their services, not in fixed wages, but in a certain percentage on the cargo—thus stimulating them to obtain as large a freight in as short a period as possible, and insuring the best exertion of their energies for mutual advantage. The *lay*, or share of the captain, is, on the average, about one-thirteenth of the value of the cargo; and an able seaman gets about the one-

hundred-and-sixtieth part for his portion. The entire crew, including master, mates, surgeon, harpooners, &c., amount to from thirty to forty men. A supply of provisions for three years and upwards is taken out from England; and the arrangements now made for the preservation of health are so judicious, that scurvy is of very rare occurrence. South-seamen are remarkably clean ships—the reverse of the popular notion concerning whalers; within a few hours after the capture of a whale, the vessel and crew exhibit no signs of the temporary disorder the cutting-up necessarily occasions.

A South-seaman usually carries five swift boats, thirty feet in length, built of light materials, and shaped both ends alike, in order that they may with greater readiness be backed from the vicinity of a dangerous whale; they are steered with a long oar, which gives a much greater and more decided command over a boat than a rudder. Five long oars propel each boat, the row-locks in which they play being muffled, in order to approach the destined victim without noise. Sockets in the floor of the boat receive the oars when apeak. As these whale-boats are thin in the timbers, for the sake of buoyancy and speed, they very frequently get shattered by blows from the fins, flukes, and tail of the whale attacked; and consequently their crews would inevitably perish, were it not for a contrivance which we think cannot be too generally known to all who go a-boating either on business or pleasure. Life-lines are fixed at the gunwales of the boat; and when an accident causes her to fill, the oars are lashed athwart by aid of these lines, and although she may be quite submerged, still she will not sink, but bear up her crew until rescue arrives. We are sure that were this simple expedient known and adopted by merchant seamen and others, many hundreds of lives would be saved every year; for it is rarely that a boat is swamped so rapidly that there is not time to lash the oars athwart her gunwale.

And now, reader, please to step on board the sperm-whaler. We are cruising somewhere in the great Pacific Ocean. Our ship is clean from stem to stern—from try-works to cutting-falls; our boats are hanging ready to be launched at a moment's notice; keen eyes are sweeping the horizon in every direction, and sharp ears are anxiously listening for the anticipated cry of 'There she spouts!'—for we are sailing along the edge of a current, and sperm-whales are known to be in the vicinity. It is early morning, with a fine working-breeze; and if you will take your station with us on the cross-trees—or, if that is too lofty an elevation, on the foretop beneath them—we will point out to you the well-known indications of sperm-whales being hereabouts. First of all, you probably glance, with a sort of wondering smile, at the queer-looking machine at the cross-trees overhead. Well, that is the *crow's-nest*; but its tenant is not a feathered creature, but a tarry, oily, old Salt, who is the look-out man for the nonce, and whose keen gray eye, even whilst he refills his cheek with a fresh plug, is fixed with absorbing attention on yonder tract of water, where he seems to expect every instant to see a whale rise and spout. The *crow's-nest*, as you perceive, is composed of a framework in the shape of a cask, covered with canvas, and furnished with a bit of seat and other little conveniences, to accommodate the look-out, and, when necessary, shelter him in some measure from the weather, as he frequently has to remain long aloft at a time. We believe, however, that South-seamen do not use, nor require, the *crow's-nest* so much as the Greenlandmen.

Now, look around, and mark what vast fields there are of the Sally-man, and of Medusa of all kinds, and observe the numerous fragments of cuttle-fish floating about, remnants of the recent meals of the cachalot; and, above all, see the great smooth tracts of oily

water, which shew that a party of whales has passed over this portion of the ocean's surface not very long ago. Ah! you admire the countless flocks of birds hovering close by the ship. Yes, they are in unusual numbers, for they know by instinct that they will soon obtain abundance of food. But for one bird in the air, there are a thousand fish just beneath the surface. See! for hundreds of yards on every side of the ship, the water is literally blackened with albacores. They have attended us for many weeks, and will not be got rid of, unless a strong wind drives the ship along at a very rapid rate. They swim sociably along with us from one cruising-ground to another, and can be captured by hook and line with the greatest ease. They are fine fellows, averaging some four feet in length, and are of excellent quality for the table. Watch them frightening the poor little flying-fish into the air! The latter are soon snapped up by the hovering birds, or are seized and devoured by the voracious albacores, the moment their feeble powers of flight are exhausted, and they drop helpless into the sea again. The albacores, too, have a very terrible enemy in turn—nothing less than the sword-fish, many of which corsairs make a rush, from time to time, through the dense droves of albacores, and transfix them, one or two together, with their long projecting swords, off which the slain albacores are then shaken and devoured by their ruthless enemy. It sometimes happens that the sword-fish misses his aim, and drives his weapon into, and even through a ship's side, to the great danger of the vessel.

Ha! our old look-out man sees a sign! Now he hails the deck. 'There she blows! there she spouts!' What lungs the old fellow has! Hark to what follows. 'Where away?' sharply cries the officer on deck. 'A school of whales broad off the lee-bow, sir!' 'Main-yard aback! &c. Out boats!' 'There she blows again! There she flukes!' 'How far off?' 'Three miles, sir! There she breaches.' 'Be lively, men! Lower away!' 'All clear, sir! Lower away it is!' 'Cast off falls!—unhook!—out oars!—give way, men!'

You will please to bear in mind, worthy companion, that you and we are now seated somewhere in the boat, as it pulls away, 'With measured strokes, most beautiful!' and that we shall consequently see whatever takes place. Meanwhile, let us take advantage of the interval which must intervene ere the whale we pursue is within harpoon's reach, to enlighten you a little about sperm-whales generally. The cachalot or sperm-whale is one of the largest of all the cetacean tribe, not unfrequently attaining the length of 60 feet: there is an authenticated instance of a sperm-whale 76 feet in length, and 38 feet in girth—a leviathan among leviathans! The female cachalot does not attain much more than half the size of the male, and yet gives birth to young ones 14 feet in length, and of proportionate girth. The average yield of oil is about eighty barrels for a full-grown male, and twenty-five for a female. The cachalot is black in colour, but is occasionally spotted with white towards the tail. The head is one-third the entire length of the creature, and is of a square form, with a very blunt snout. The body is round, or nearly so, and tapers much towards the tail. The fins are triangular shaped, and very small; but the tail is of immense size, very flexible, and of tremendous power. When the animal strikes it flatly on the water, the report is like that of a small cannon. When used in propulsion, the tail is bent back beneath the body, and then sprung out again; when aiming at a boat or other object, it is bent sharply, and strikes the object by its recoil. The eyes are placed far back in the head, and well protected by integuments. They do not measure more than two inches in length by one in breadth, and have small power of gazing in an oblique direction. The tongue is small, and cannot be protruded; but the gullet or throat is quite in proportion to the bulk of the animal, so that it could easily

swallow a man; and this fact clearly disposes of the sceptical objection to the Scripture narrative of the prophet Jonah. The expansion of a pair of jaws nearly a score of feet in length must be a startling sight! The lower jaw appears slender in comparison with the vast bulk of the upper one.

The greater part of the head of the sperm-whale is composed of soft parts, called junk and case. The junk is oily fat; and the case is a delicate fluid, yielding spermaceti in large proportion. The teeth of the cachalot appear mainly on the lower jaw, projecting about two inches through the gum, and they are solid ivory, but without enamel. The black skin of this whale is destitute of hair, and possesses such a peculiar alkaline property, that seamen use it in lieu of soap. The lard or blubber beneath it varies from four to fourteen inches in thickness, and is perfectly white and inodorous. What whalers term schools are assemblages of female cachalots in large numbers—from twenty to a hundred, together with their young, called calves, and piloted by one or more adult males, called bulls. The females are called cows. As a general rule, full-grown males either head the schools or roam singly; sometimes a number of males assemble in what is called a drove.

And now let us revert to the chase we are engaged in. See! the school has taken the alarm, and is off at the rate of eight miles or more an hour. Is it not a beautiful and exciting spectacle to watch these huge monsters tearing along on the surface of the water, spouting vapour from their spiracles like steam from the valve of a steam-boat, and leaving a creamy wake behind them, almost equal to that of a ship. Their movement is easy and majestic, their heads being carried high out of the water, as though they were conscious of being the monarchs of old Ocean. See, again! there is a sperm of the largest size, which has just leaped so as to shew its entire bulk in the air—almost like a ship in size. What a crash and whirl of foam as it falls into its native element! But we gain on one fine fellow, which our headsman is steering for. Ay, now we are within fair striking distance, and a harpoon is hurled by the brawny arm of the harpooner in the bows, and pierces deep into the cachalot's side. A second follows; and the wounded animal gives a convulsive plunge, and then starts off along the surface at astonishing speed, dragging our boat along with it. You observe that the whale-line runs through a groove lined with lead, and is secured round a loggerhead. The 200 fathoms of line will soon be all out, for the whale is preparing to *sound*, or dive deep beneath the surface. There he sounds; and the practised harpooner has already bent on a second line to the end of the first. Well, he cannot possibly remain above an hour beneath the surface, and probably will reappear very soon. Just as we thought; and now we must haul gently alongside, the officer in command standing with his formidable lance poised ready to dart on the first opportunity. That blow is well planted; more succeed, and already the victim is in its last *flurry*. Our watchful rowers back water, to be beyond reach of a blow from the expiring monster's tail or flukes. He now spins round, spouting his life-blood, and crimsoning the sea far and near: now he turns over on his side, and the cheers of the men proclaim their easy victory.

Whilst preparations are making to tow the dead cachalot to the ship, permit us to impart a little further information concerning the chase and capture of the sperm-whale. You have beheld a very easy capture; but not unfrequently the cachalot makes a most determined resistance, and with every appearance of being actuated by revenge, as well as by the instinct of self-preservation, attempts to seize and destroy a boat with its jaws. In this it frequently succeeds. At other times, it sweeps its tail rapidly through the air,

and suddenly bringing it down on a boat, cuts the latter asunder, and kills some of the crew, or whirls them to a great distance. Occasionally, so far from fleeing from approaching boats, as the Greenland whale almost invariably does, the terrible cachalot will boldly advance to attack them, rushing open-mouthed, and making every effort to crush or stave them. Often will the cachalot turn on its side or back, and project its long lower jaw right over a boat, so that the terrified crew have to leap overboard, oars in hand. Sometimes it rushes head-on at the boat, splintering it beyond repair, or overturning it with all on board. But what shall we say to a cachalot attacking the ship itself, and actually coming off victor? An enormous cachalot rushed head-on, and twice struck the American sperm-whale ship *Essex*, so as to stave in the bows, and the ship was lost, the crew barely having time to escape in the boats! We refer the reader who desires to know more of the peculiar habits of the sperm-whale, to the books of Herman Melville, the American sailor-author, and of Mr Bennett. We may say a few words more, however, on the subject of the dangers incident to the capture of the cachalot. The harpooner, especially, is liable to be entangled in coils of the line as it runs out after a whale is struck, and to be then dragged beneath the surface; and even although the line is severed at the moment by the axe kept in readiness, the man is usually gone. Yet more appalling is the calamity which occasionally befalls an entire crew, when the struck whale is diving perpendicularly. It has happened repeatedly on such an occasion, that the line has whirled round the loggerhead, or other fixture of the boat; and that in the twinkling of an eye, almost ere a prayer or ejaculation could be uttered, the boat, crew, and all, have been dragged down into the depths of ocean! Such, too, is the pressure of the water upon a boat when it descends to a certain depth, that on being drawn to the surface again, it will not float, owing to the fluid being forced into the pores of the planks, not only by the mere density of the ocean, but also by the rapid rate at which the whale has dragged it. It has happened many a time, that a boat at a distance from the ship has been seen to disappear suddenly, pulled bodily down by a harpooned whale, not a vestige of boat or crew being ever seen on the surface again! If we regard whaling merely as a manly hunt or chase, quite apart from its commercial aspects, we think it is far more exciting, and requires more nerve and more practised skill, and calls into exertion more energy, more endurance, more stout-heartedness, than the capture of any other creature—not even excepting the lion, tiger, or elephant.

But let us return to our own captured cachalot. You perceive that the men on board the ship are preparing to receive it. They have placed some short spars outside the vessel to facilitate operations, and have removed a dozen feet of the bulwark in front of the platform to which we before directed attention. The cutting-falls are also all ready, and the ship itself is hove-to. We will anticipate what ensues, and describe it for you. The dead whale floats buoyantly—although in some rare instances it will sink—alongside the ship, where it is well secured, and a stage is slung over the vessel's side, from which the officers overlook and direct operations, &c. The blubber between the eye and pectoral fin is cut through with the spade, which is a triangular-shaped instrument, as sharp as a razor, attached to a long shaft or handle. A man now gets upon the whale—his boots being spiked to prevent slipping—and fixes the hook of the falls to it. The windlass is then manned, and lifts up the detached blubber, the spades cutting away and the whale slowly turning over at the same time. The strip of blubber thus in course of separation is about four feet in breadth, and is called a blanket-piece. It is cut in a spiral direction, and lowered on deck when it reaches up to the

head of the cutting-falls. Fresh hold is then taken, and the operation is continued until the whale is entirely flensed. If the whale is a small one, the whole of the head is at once cut off, and hoisted bodily on deck; but if a large one, its important parts are separately secured. Finally, the skeleton is cut adrift, to float or sink, as may happen. The entire operation occupies at least ten hours, if the whale is very large.

During this cutting-up affair, the water far and near is red with blood, and great flocks of petrels, albatrosses, &c., hover about to pick up the floating morsels. Swarms of sharks also never fail to attend; and so voracious are these creatures, that the men have to strike at them with their spades, to prevent them from devouring the whale piecemeal, ere its remains are abandoned to fish and fowl at their legitimate prey. Although the whalers generally kill many sharks on such occasions, it is said that if a man slips from the carcass of the whale into the midst of these devourers, they seldom attempt to injure him. Personally, however, we cannot say that we should like to put the generosity of Messieurs Sharks to such a test.

The blubber is carefully separated from the bits of flesh which may adhere to it preparatory to boiling, an operation first undergone by the head matter, which is kept distinct from the body matter—the former yielding spermaceti, the latter sperm-oil. The scraps, or refuse matter from the oil, themselves supply the furnace with fuel, burning clearly, and emitting intense heat. This operation is called trying-out, and is only dangerous when proper precaution is not used to prevent water from falling into the boiling oil, or by carelessly throwing in wet blubber; in which case the caldrons may overflow very suddenly, and everything be in flames together. From the try-works the oil is conveyed to the coolers, and thence to the casks; and a good-sized whale, in favourable weather, may be cut up and converted into oil, &c., within a couple of days.

The spectacle of trying-out on a dark night is exceedingly impressive. There is the ship, slowly sailing along over the pathless ocean, the furnace roaring and producing lurid flames that illumine the surrounding waves, the men passing busily to and fro, and dense volumes of black smoke continually rising in the air and drifting to leeward. Trying-out in a gloomy midnight has a touch even of sublimity about it; and we can conceive the feelings of awe and terror it would inspire in a spectator beholding the ghastly show for the first time from the deck of another ship. We think it is Herman Melville who compared the crew of a sperm-whaler, on such an occasion, to a party of demons busily engaged in the celebration of some unhallowed rite; nor is this fancy at all outrageous, to our thinking. What a picture might a painter of genius make of the scene!

And now, reader, we hope you do not begrudge the time spent with us aboard a sperm-whaler? But we crave the favour of your company, or rather, in Shakspearian language, we say, 'lend us your ear' yet a little longer. Certain announcements appeared recently in the papers concerning improved methods of killing the leviathans of the deep. First in order was a simple and presumably effective plan for projecting the harpoon into the body of the whale. A small cannon or swivel was fixed in the bow of the boat, so as to be capable of being raised or depressed, and to turn on its pivot in any required direction. The harpoon was fired from this gun at the object—with a few fathoms of small chain attached, so that no injury would result to the whale-line itself in the act of firing. This scheme appears to have been well received for its apparent feasibility; but whether it has, on fair practical trial, been found to fall short of what was expected from it, we are unable to state. Its advantages were expected to be the following:—The harpoon could be fired from such a distance, that there would not be any



necessity of approaching dangerously near the animal at the outset; and the force of its projection would be such, that the harpoon would be certain to be firmly planted, and very probably might penetrate a vital part, and nearly kill the whale at a blow.

A yet more important and extraordinary innovation is that which was proposed some two years ago, and is now again attracting new attention—being nothing less than whaling by electricity. The electricity is conveyed to the body of the whale from an electro-galvanic battery contained in the boat, by means of a metallic wire attached to the harpoon, and so arranged as to re-conduct the electric current from the whale through the sea to the machine. This machine is stated to be capable of throwing into the body of the whale such strokes of electricity as would paralyse in an instant its muscles, and deprive it of all power of motion, if not actually of life.

Should all we are told about this whaling by electricity be true, a marvellous change will take place in the fishery. The danger of attacking and killing the cachalot will be reduced to its minimum; few or no whales which have once received the fatal galvanic shock will escape; the time consumed in their capture will probably not average the tenth of what it does at present; and the duration of the ship's voyage will be materially shortened, for there will be no limit to the success of the chase, and the rapidity with which the cargo will be made up, except the time which now, as always, will be absolutely necessary to boil down the blubber. But how long will the supply of cachalots be sufficient, under the new system, to yield remunerative freights? We know that the sperm-whale has already been seriously thinned in some localities, and that a certain time—perhaps much longer than whalers and naturalists reckon—is necessary for whales to grow to a profitable size. Now, the electric battery, according to our authorities, being so deadly in its application, we should suppose that when a whaler falls in with a large school of cachalots, and sends out all his boats, each armed with a battery, they will be able to kill perhaps thrice the present maximum number (five), which can be secured at one chase and attack, and in one-fifth of the usual time. If they do this, it matters little whether they can secure all the dead whales for cutting up—the animal is at anyrate destroyed, and years must elapse ere another will have grown to take its place in the ocean. To drop this speculation, however, we may at least reasonably conclude, that the capture of sperm-whales will become a matter of more certainty and greater expedition than it is at present; and if the number does *not* rapidly diminish year by year—although we seriously anticipate that it will—the price of sperm-oil, and the other commercial products of the fishery, may be expected to become materially lower. That this would cause an increased demand for these products, there can be no doubt, for at present the limited supply, and the large quantity of sperm-oil used for lubricating delicate machinery, keep up the price.

Let us now conclude with a few words on the commercial products of the cachalot. The most important is the sperm-oil, used for lamps and for lubricating machinery. It is more pure than any other animal oil. Spermaceti is a transparent fluid when first extracted from the whale, but it becomes concrete when exposed to a cold temperature, or placed in water. It is found in all parts of the whale, but chiefly in the head and the dorsal hump. After being prepared, it is cast in moulds for sale in the shops, and is chiefly used for making candles. Formerly, as Shakspeare tells us, it was considered to possess curative properties—

The sovereign'st thing on earth  
Is spermaceti for an inward bruise.

The teeth yield ivory, which always sells at a remunerative price. Lastly, there is the rare and mysterious substance called ambergris—the origin of which was long a problem, which even the learned could not solve. It is now known to be a kind of morbid excrescence produced in the intestines of the cachalot, and in no other species of whale. It is sold as a perfume, fetching a pound sterling an ounce when pure, and rare in the market even at that price. When found floating on the sea, it has undoubtedly been voided by the cachalot, or has drifted from it when the body became decomposed after death.

## THE LITTLE PEOPLE OF OUR GREAT TOWNS.

WE live in an age and country which at least talk much of class grievances; and that everybody knows to be the first step, though perhaps a far-off one, to their removal. There is, however, an annually increasing class of Her Majesty's subjects whose peculiar disabilities have been championed by no pamphleteer, and represented by no petition to parliament, nor has any honourable member yet pledged himself on the hustings to attempt their remedy. It is not that the unfortunates themselves are voiceless: go to the streets and lanes of our cities—the poorer and more crowded the better—and you will hear them in summer afternoons, or in calm evenings when the spring is coming, send up their daily remonstrance. Ill worded, indeed, it is, and unequal, now rising in shouts, now falling in broken murmurs, for the aggrieved subjects are children, who have known no daisied common, meadow-brook, or household garden; and the burden of the petition is—Room to play.

Reader, there is no treason against your gentility imagined; but if you live in a back-street inhabited by honest artisans and small shopkeepers, near the busy heart of a great English town, your hearing the said petition cannot be a matter of choice. It will come in all forms, and at every season—through your window, open for air in the early summer, ring discordant shouts for the May, as a venter of blossomed hawthorn passes. If your childhood has seen it whitening up old trees and hedgerows, think what theirs has missed. When you sit by the fire as the winter twilight falls calm and frosty, listen. They are singing old nursery-rhymes hard by the gin-palace. Look out on their poor plays—how circumscribed they are and meagre: trundling a hoop along the pavement, building banks in the gutter, and running small races from door to door. A real run or jump is not to be had; business has left no room for them. The streets belong to the grown-up and their interests; and even these limited entertainments bring the rising generation in everybody's way. Ladies in pink bonnets put them aside with sour looks; the respectable householder, who has lived there ever since the street was built, wonders their parents don't keep them within doors (he means in a two pair back); cab and omnibus threaten their very existence; and the policeman is to them a continual terror. There is probably a park within seven miles of their homes; their busy parents take them there some Sunday or holiday in their best clothes and behaviour, and they are afraid of the damp grass or of walking too far. Childhood in town and country are different things. O the bramble banks on which our clothes were torn!—O the green lanes where we wore out our shoes—the pools we fell into—the marshes in which we stuck fast, and feared nothing except our misadventures being found out at home! There were swings taken stealthily on old orchard-trees; there were garden-beds of our own, with London Pride and Sweet-william in them—close by a southern wall where great cabbage-roses bloomed rich and red

at midsummer. There were gatherings of everything that ripened in wood and dingle, from the first wild strawberry to the last of the haws.

The city-born can have no such memories. Their early world is one of brick and stone; its glory consists of shows and shop-windows; and its wisdom is the precocious knowledge of what can be had for a penny. Worse learning, doubtless, there is, even for childhood in large towns; but this is the common lot, not only of the working-people's children, with whom our theme began, but of the heirs and successors of well-to-do respectability. Genteel-street children are not, indeed, scolded off the pavement, or chased out of the gutter; there is commonly a room in the house for them to play in, and a grassplot, with some acclimated trees, in most of the squares where they live. They see far more sights; they have finer toys bought for them; they are taken oftener to the parks, and once a year to the country. But behold how early the compensation balance of life is made manifest: while the carpenter's five fir-twigs can rush down from the paternal mansion on the third floor, hoop in hand, to improve the shining minute, it requires at least two hours' hard dressing before a corresponding number of the mercantile or professional gentleman's olive-branches can go forth—hatted, gloved, and maided—to take the morning air. Then, only think of the fine clothes that are to be taken care of under high penalties! How is Miss Mary-Anne brought into bondage before the time to her laced polka; and the playtime of Master Tommy's existence sacrificed to his tunic! On the premature vanities thus instilled, let graver moralists discourse: a dressed-up child is a sad spectacle; and we never meet a group of little boys and girls, overlaid with their seniors' costly inventions, and kept in worship of the same by maid or mamma, without wishing, for their own sakes, that the silk were calico, and the velvet fustian.

Could any benevolent fairy be found to accomplish that wish, many a young life might be happier, and many an old one wiser; but the fairies have left our world to trade and fashion; Cinderella's godmother and the queen of the lilies are gone even from country nurseries, for there also finery has come in like a flood; nevertheless, there are ditches 'and duck-ponds at hand; moreover, the proverb, 'out of sight, out of mind,' retains its ancient truth, and splendid hats and frocks run so many chances of injury, that they are apt to be reserved for occasions of ceremony. Regarding city childhood, there is one question which has long puzzled us: Do its merely local memories haunt the pauses of after-life, like those that bind the dreams of the country-born to hill and river? We know that hut or hall may become alike hallowed, because of the loving glance and tone whose like will meet us no more on this side the skies—over these, time and place have no power; but does the gutter in the back-street, long pulled down and built over, return to the workman's visions, as the meadow-stream, with its primrose banks, comes back to those of the peasant's son? Can the second floor in the beer-shop over the way be remembered as vividly as the cottage among the corn? Will the grassplots and parks where the olive-branches went gloved, &c., be dreamed of like the woody dells, where springs flashed up, and violets grew thick at the roots of old mossy trees? We cannot think they will; and, if we are right, the players in park and gutter are spared one dreary experience—the vague and reasonless pining for the old place which comes over one in far-off times, when all he once knew are changed and gone, and there is nothing to be seen but graves and strangers.

After all, it may be that early scenes have their hold on the heart only through association. It is not the violet dingles, but life's violet days we miss—not the home garden, but the fresh feelings with which we turned the mould. On that principle, what springs of

pleasantness may well up from the memory of the back-street gutter—what summers may shine back through recollections of the grassplot in the square! There is, then, something like real childhood in cities, in spite of pinched play, in spite of early business, yea, and in spite of hats and tunics. Well, we wish it more room and better air, not forgetting its vested rights in butter-cups and daisies. Indeed, it has long been our private persuasion, that families should be brought up only in the country. The idea occurs often, particularly at Guy Fawkes's time; and now a sound of promise rises through the march of civilisation. Science will win back to the workman's children their birth-right, that was sold for such a miserable mess. Has not everybody heard of the subterraneous railways intended to carry passengers from the utmost edge of London to its heart, for something between a half-penny and a farthing? Should that experiment succeed to the satisfaction of shareholders—and there seems no cause of doubt—the close of the present century will probably see our cities surrounded by huge village-like suburbs, full of cottages and gardens, where households will live and children play, and fathers come home when workshops close, leaving the crowded streets entirely to business, and citizens who own no other responsibility.

Reader, the time specified would not bring a raven to his discretion; but they that interrupt your meditations with, 'Here we go round!' or, 'All on a Monday Morning!' will be gray before it comes. Be entreated, then, for the luckless disturbers. If you must scold them from door or window—for human patience has limits—don't scold hard; and you, O gentle dames, who do the dressing of posterity, we know the awful necessity that requires the little Whites to be as fine as the small Greens; but do make allowances for tumbles in the mud, admit the possibility of a scramble through dust and dead leaves, and more will be gained than ever was expected by this plea for the little people of our great towns!

#### RELATIONS NOT ACQUAINTANCES.

It is surprising how many of our words, apparently strangers to one another, are, in reality, near akin. The wear and tear of accident and time have so disfigured some of them, that genuine descendants of the same stock daily rub shoulders without recognition. It is interesting to trace the affinities of these estranged members of our vocabulary. We like to meet a heretofore unknown cousin—in Scotland, even a second or third cousin; and it is no less pleasant to see a number of words made to shake hands as relations, that had hitherto looked on one another as strangers. The smile of recognition, that is reflected from one to the other, brightens up their faces, and throws a new light over the page in which they stand.

Much has already been done in clearing up these disguised relationships among the Greek and Latin words of our language. Even those who have never made a particular study of Latin, have been taught at school that such words, for instance, as *prospect*, *conspicuous*, *spectacle*, *species*, &c., are all of one family, the descendants of the Latin verb *specio* (*spectrum*), 'to look at.' This is so far well; but we remember that, for years after we were familiar with this, and other families of Latin origin, we went on using daily such common Saxon words as *garden*, *girdle*; *ward*, *warren*, without perceiving any connection between them, although it is no sooner looked for than it strikes. We suspect our case is far enough from being singular, and that the majority of Englishmen and Englishwomen never think of *gate*, for instance, as coming from *go*; still less would they dream of finding anything in common between *war* and *beware*. And yet, to a right knowledge of the



English tongue, it is surely as necessary to have a perception of the fundamental notion common to all the words of each such group—to know something of the pedigree and relationship of the *wars* and *wards*, and of their French cousins the *guars* and *guards*—as it is to study the family tree of *specio*—*spect*.

But there is yet a higher step. We have been too long accustomed to look upon these Latin families as separated from the Saxon part of our vocabulary by an impassable gulf, with no more relation between them than if the former had dropped down from the moon. But the recent researches of philology have thrown quite a new light upon the subject, and have proved, nearly to demonstration, that almost all the languages of Europe must have had a common origin—are daughters of some one unknown mother, of whom many features are found, on examination, to be common to them all. This prepares us to look out for relations, not merely among Latin words by themselves, and Saxon words by themselves, but to find a Saxon group and a Latin group intimately connected; as if some old family in a distant land had branched into two lines, and those lines, after migrating in different directions, were found at last living side by side on our island, apparent strangers to one another, till some observant eye detects the family features, or some patient antiquary traces the genealogy of each back to the common ancestor.

A much more striking instance might be chosen; but having spoken already of the Latin clan of *specio*, let us see if they have any congeners among the words of our language not Latin. *Spy*, and its derivatives, occur readily enough. This word, in some form, is found in most at least of the Teutonic languages. In Dutch, it is *spien*; in German, *spähen*; which last will enable even the uninitiated to see how it could ever have been identical with *specio*. \* For, in the first place, *h* in the older forms of the German tongues was a strong guttural, much the same as *ch*—therefore *späch*; and, again, *c* in Latin was originally the same as *g* hard, or rather, like *g* in German, something approaching to guttural *ch*, which brings *spec* also to *speech*. Then, along with the *spy* family, which is not very numerous, having apparently not thriven on British soil, we have some French immigrants, evidently of the same stock, *espy* (espier or épier), *espionage*, &c., which have every appearance of having come into France at first, not from Italy but from Germany, from which we got our Saxon branch. Much more like the German is the Scottish provincial *spae*-wife—that is, 'a female seer,' 'one that tells fortunes.'

To give a richer example of the unexpected consanguinities that may thus be established, we start with the assertion that the following words, which are certainly far enough from being like, either in sense or sound, are all from the same root: *hand*, *prize*, *ten*, *hundred*. This we undertake to prove to the satisfaction of unprejudiced readers, without supposing them to be versed in Latin or Sanscrit, or any tongue but their own; and merely asking them to believe us when we state, that there are such and such words in such and such languages; which facts, we must confess, we take in several instances on the word of those who profess to have verified them. Well; there were in the Gothic language—the oldest form of any Teutonic tongue that we have any records of—two words: *hund-s*, signifying 'a dog;' and *handus*, 'the hand.' In

many cases, the first syllable of *handus* passes into *hun*, shewing the same root in both; and they are evidently connected with the verb *hinnan* (*henden*), 'to catch' or 'seize'—both a dog and a hand being 'catchers' or 'seizers.' We have traces of this verb in our own language as late as Chaucer, who has 'he hente,' for 'he held' or laid hold of. This is one of those words common to all the Indo-European languages. In Latin, the root has not survived in its simple form; but we know a Latin word, *prehendo*, 'to put forth the hand and seize,' from which were formed compounds, since adopted into English; such as—*apprehend*, *comprehend*, &c. The participle of *prehendo* was *prehensus* or *prensus*, 'seized,' which was changed by the French into *prendre*, *prince*, *prise*, 'something seized,' 'a prize,' and in this form it came over to us. The blood-relationship, then, of *hand*, *hound*, and *prize*, we believe to be established beyond dispute; and the idea they have in common is that of *seizing*. But how bring *ten* into the brotherhood?

Nothing more simple. The Goths, barbarians as we think them, had already a notion of the decimal notation; the foundation of their system, in the higher numbers at least, was *ten*. The sensible representation of this number was two hands held up, with their ten fingers; and the word they expressed it by was *taihun*, a mutilated form of *twai-hund* or *twai-hand*. This is the oldest form of the word; but as it descends the stream of time, it gradually contracts into *tehun*, *tehen*, *ten*; in High German, it is *zehen* or *zeha* to this day.

The case of *hundred* is not more difficult. In Gothic, it was ten tens, two hands  $\times$  two hands, *taihun-téhund*. This might be tolerable so long as the possession of a hundred head of cattle was a rarity, but not longer; and as the busy Londoner makes short work of *omnibus*, and says 'buss' so, as the Goths got more articles to count, they would content themselves with the last part of the expression, with a difference—*hunda*. And this, in fact, was done from the beginning, with all the hundreds except the first: two hundred was not *twai-taihun-téhund*, but *tea-hunda*.

Our readers might fancy that we were imposing upon their credulity if we asked them to believe that *canine*, *cent*, *decade*, *quintessence*, &c., have all sprung from the same prolific stem that we have seen to give us *hound* and *ten*. Yet in these, and a great many more as unlikely cases, we believe that philologists have made out their point, though the array of outlandish words, and of reasonings by which it is made to appear, would be out of place here. We prefer returning to the great Teutonic clan of the *Wars*, which we alluded to above, and endeavouring to clear up the relationship of some of its branches, that are living quite estranged from the rest.

It may be well to premise, that, though the great bulk of the French language is derived from the Latin, it retains many words from the original languages of the northern tribes that from time to time settled in ancient Gaul. Among others, there are several descendants of the stock we are speaking of; but there being no *w* in French, the Teutonic syllable *wer* or *wear* is transformed into *guer*, *quar*, or *gar*; just as in Latin the northern name *William* was written *Gulielmus*, and our *Wales* becomes in modern French *Galles*. These French *guars*, then, came over to England with the Normans at the Conquest, and settled alongside of the Saxon branches, retaining their French dress to this day. There will, therefore, be no difficulty in looking upon *guard* and *ward*, for instance, as the same words differently spelled.

The ground idea, that pervades nearly all the members of this group, is that of *defence*. Yet there is reason to believe that the primary meaning of the root, from which they all sprung, was 'to look at.' Starting

from that notion, we have *regard* (from the French *regarder*, 'to look at'), *award*, *reward*, *guard*, all involving the idea of 'looking' favourably at a case (compare the phrase, 'a consideration'); *weary*, *aware*, *unaware*, *warn*, *beware*, 'to look out' so as to be on our guard.

In the remainder of the series, the idea of 'looking' becomes less prominent; the secondary meanings predominate. The very different significations of the same expression in the two sentences, 'Look to yourself!' and 'Look to it!' enable us to see how the same root could give rise to a series of derivatives, some meaning 'to guard,' 'keep,' or 'protect,' and others 'to guard against,' implying also 'to attack.' The principal are—*ward*, *guard*; *warden*, *guardian*; *wardrobe*, *warrant*, *guarantee* (French, *garantir*); *warren*, for keeping rabbits; *sear* or *seir*, for confining the water of a river, or for fish (compare the French *gare*, in a canal or river).

The English *war* and the French *guerre*, with their numerous progeny, involve the idea of the offensive as well as the defensive; in the *wehr* of modern German, which has another word to signify 'war,' the idea of defence predominates—as in *Landwehr*, 'the national guard.' The root occurs in the word *German* itself, which is merely the Latin way of spelling the name *Wehrman* or *Warman*, which the warlike tribes of Germany arrogated to themselves. The name of their national hero, Hermann, who destroyed the legions of Varus, is the same word slightly modified. We need not pursue the direct line further; many more will suggest themselves to the reader. Let us see if there are any collateral branches, where the relationship is more obscure.

Whoever thinks of our sportsman's exclamation to his dogs—*ware!* and of the French term of the chase—*gare!* (the same word once familiar to Edinburgh ears in the warning *gare-l'eau!*) and would explain them by 'look out,' 'have a care!' will feel that in his explanation he has used the same word. The relation of *care* to the Latin *cura* increases the probability of this, when we reflect that the Latin letter *c* was originally *g*. We thus seem entitled to claim *care*, *cure*, with all their offspring, *careful*, *secure*, &c., as collateral branches of the great *War* family.

Again, we are told that in Sanscrit, which is older than either Greek or Latin, there is a root *vrī*, or *var*, 'to protect;' recollecting that *v* is pronounced *r* by most people but ourselves, we recognise in this our old friend *war*, or *wehr*. Now, there is also a Sanscrit noun formed from this root, *vrī*—namely, *viras*, 'a warrior,' a hero. The Latin *vir* is clearly the same word; it, too, signifies not 'a man' in general, but 'a brave man;' and *virtus*, formed from it, signified originally 'efficiency in war;' the only kind of 'virtue' of much account in those days. Here is another numerous addition to our clan.

What would our readers think to be told that the same alliance is claimed for *hero*, *aristocracy*, *Mars*, and others of the like heterogeneous aspect?—But their faith and patience have already been taxed enough for the present.

In the meantime, we take the liberty of recommending this curious and interesting subject to all that are fond of classifying, and of tracing analogies and resemblances. It is a kind of natural history particularly suited to this season of the year, when flowers and butterflies are equally scarce; and with all respect for botany and zoology, we must confess it has for us at all times a deeper human interest—*mentem mortalia tangunt*. We like, as well as another, to contemplate the tooth of a pre-adamite pachyderm, and picture to ourselves the unwieldy creature munching its strange-looking herbage; but we often find still greater attraction in some obsolete word, or worn-out form of speech—those *exuvie* of once living thoughts. To trace how, and with what resemblances and differences, men have, in different ages and countries, striven to embody and

make manifest to their fellows their thoughts and emotions, is surely of more concern to a man, than to know the habits and habitats of all the other animals on the earth.

## WEARYFOOT COMMON.

### CHAPTER IV.

#### THE HOUSE THROWS OUT AT WINDOW.

SIMPLE LODGE, to do it justice, did not very soon forget the poor youth it had ejected; but still things appeared to go on pretty much in their usual course. Even the advent of a governess made no commotion in the family, for Miss Heavystoke settled quietly down in it, in her own place. What is a governess's place? Strictly speaking, it is that of a person hired with money, and money's worth, to perform certain services not menial; and who must, therefore, neither be treated as a servant, nor be permitted to assume as her right a position of equality. When this position is conceded—which it frequently is—it is not to the governess but to the woman. The social qualities of the individual fit her for a social rank quite apart from her professional rank; and the lady of the house finds it very convenient to have a family friend in the instructress of her children. The instructress herself labours for an hire, and the labour is not necessarily of an intellectual character, although sometimes rendered so by talent and zeal. We have known good governesses very ignorant women—women who had not the mental power of assimilating the information they imparted.

As for Miss Heavystoke, she did not trouble herself about questions of position, and in this family she had no occasion to do so. She went conscientiously through a certain routine of teaching she had studied at a boarding-school on purpose, and became gradually attached, in a motherly way, to her pupil. She accepted without demur the chair that was offered her, next to Elizabeth, and rather preferred it to the arm-chair, as in cold weather it gave her more of the fire, while it always afforded her the luxurious use of the table. The chivalrous captain treated her, of course, as a gentlewoman; and although his courtesy was a little alarming at first, she got used to it. As for either he or his sister thinking of dispossessing her, in any emergency whatever, of her accustomed seat, or of leaving her out in the calculations of a dinner—such were impossible ideas. For the rest, Miss Heavystoke was a good listener to the captain's stories: they kept her curiosity in a chronic state of sub-excitement, and she was never tired of being disappointed. After a time, however, she did not scruple to controvert some of the philosophical opinions of Elizabeth, but in a quiet, undemonstrative way, which answered well with the coldness of her adversary. To these arguments the old soldier listened attentively; but he considered himself to be on the side of Elizabeth, and the governess, therefore, was sure to get the worst of it. On such occasions, he was always more kindly gruff than ever; and when the tray came up, would make a perfect point of putting some consolatory sherry into her customary glass of water.

The life led at the Lodge was slow for Sara; but at least once a month there came a letter from Robert, which stirred up her ideas, and set them working for some weeks. The letter was always about his studies. He had always something new to communicate, some-

thing to direct her attention to, some book or passage to note for her reference. In fact, the poor lad fancied that this was the only return he could make for her uncle's kindness; and he never learned anything new himself without trying to impart a portion of it to her. This was fortunate for Sara, for Miss Heavystoke was just one of those excellent governesses who teach everything necessary but the art of thinking; and her lessons, therefore, without some such supplementary aid, would have left the mind of her pupil as dark as ever. As it was, Sara received everything her governess could give—and the amount was not small—supplying herself the intelligence that was necessary to digest information into knowledge.

But this was, of course, a gradual process. Time wore on, and Sara's body grew with her mind, till the generation she belonged to left juvenile tea-parties behind, and took their places in quadrilles. Here Sara was of some consequence; for, having lived longer than her contemporaries—thought being life—she looked and felt older. But, besides this, she was known to be an orphan heiress; and more than one mother in the neighbourhood whispered anxiously to her son to be sure to ask her to dance, and try to be first with the lemonade. No one knew the amount of her fortune; but as the captain alluded to it with respect, it was usually set down in figures, with a gratuitous 0 at the end. The veteran, in fact, really regarded it as a very considerable sum. His experience of money was confined to income, and it never occurred to him that the handsomely sounding amount of Sara's fortune would have been fairly represented by a moderate portion of his own annual outlay.

Among the young men who neither required nor received any maternal hint of the kind, was the son of Mrs Seacole, the widow lady who, as the reader may remember, had assisted in unmasking the wickedness of the captain. The Seacoles, it is well known, are an ancient family, and this branch of it possessed a very tolerable estate, to which Adolphus would succeed at his approaching majority. The young man was good-looking, and not ungentelemanly in appearance; and although, on his first presenting himself in these pages, we find him engaged in an attempt at petty tyranny, for which he was properly punished, all such foibles of boyhood were now, it is to be supposed, past and forgotten. Sara saw few or no foibles in him. How could she? He was the first who had paid her those undefinable attentions that are so well comprehended even in the first stage beyond girlhood—attentions which, in a person of his prospects, were beyond question disinterested, and to which even his age—for he was somewhat older than herself—added an almost irresistible flattery. Young, good-looking, rich, and loving, what more could she want? Sara did not know. She was very well pleased with her admirer, and with herself for being admired; and, if she had had a confidential friend, would have doubtless filled a heavy correspondence with her sentiments and feelings on the subject. As it was, she had no confidante, and only one correspondent; and even Adolphus she saw only during the long vacation, for, like Robert, he was placed at a distant boarding-school.

The correspondence of Robert did not change so much with the progress of time as might have been expected. His letters were full of general information, but they disclosed no idiosyncrasy. He never

mentioned the school, his masters, or his companions. No one knew whether the treatment was good or bad, whether he was happy or miserable. He gradually became an abstraction in the mind of Sara—an invisible Mentor, who inspired her studies, and whom she was never to see in corporeal presence. With the captain and Elizabeth he was just what he had been on the day he left them; and his letters to Sara were for them so engrossing a study, that in the week they arrived, the Sunday newspaper had no chance. These documents were of great interest, too, in the kitchen; for the good-natured Sara read them, word for word, to Mrs Margery, while Molly listened with astonishment always ending in disappointment. The faith of her patroness, however, remained unshaken.

'Things don't turn up all on a sudden, Molly,' said she; 'fate is a slow coach, and the denouement is not till the end. Wait, girl—wait!' As for Mr Poring, when such reading began, he always left the kitchen, or else set to work to brush something, making the hissing sound with his lips which appears to be essential in the occupation of an hostler. Mr Poring, not to mention the caricature, and sundry other treasured matters, never could forget the degradation of that moment when he had been seduced by the audacious vagrant into touching his hat to the son of a woman of the name of Sal.

At the epoch we have arrived at in the history of Simple Lodge—it was very near the end of Robert's educational term of three years—a gifted seer like Mrs Margery would have pronounced that matters were to proceed quietly as usual for a little while longer, and that then the captain's niece would become Mrs Adolphus Seacole, and the Lodge go on and flourish more than ever in the protecting shade of the Hall. But things did not come out in this way. Captain Semple all on a sudden received intimation that the agent through whom he had been accustomed to draw his private income had become bankrupt, and he was at once reduced from comparative opulence to the straitened position, or not far from it, of a half-pay officer. This did completely away even with the prestige of his whiskers; and some of the neighbours—those whose gawky sons had never had any chance with the heiress—did not scruple to hint that his silence with regard to the amount of Sara's fortune was in all probability a deliberate swindle. Mrs Seacole, however, was a quiet, dignified lady, and quite above being betrayed into such demonstrative vulgarity. She doted on her son with the passionate fondness which only a mother can feel, and would not have scrupled to gratify him with the toy he had set his mind on, if it was of any tolerable pecuniary value. But to throw away the heir of the Seacoles upon a portionless, or comparatively portionless girl, was not to be thought of, and it was necessary to proceed with caution till she could ascertain how the land lay. This was difficult in a case where no proposals had been made, or could be made beforehand; and Augustus, too, exhibited a generous pertinacity which somewhat surprised his mother. But there was nothing really surprising in it; for human nature is an excellent nature in itself, and if let alone by the circumstances which try the strength and weakness of character, it would remain excellent to the end. What nice people we should all be were no such trial to take place! We talk of the generosity of youth, and the selfishness of age; but age is merely youth



modified by circumstances. Some men there be who grow old in the mysteries of life almost at once; others, though old in years, remain boys in heart to the last breath. Mrs Seacole determined very wisely, if the result of her inquiries into Sara's fortune should render it necessary, to send her son from home, to try the durability of his calf-love in collision with the hard corners and soft sponges of the world.

It is hard to say how the captain and his sister, if they had been left to themselves, would have arranged to meet their altered fortune. The veteran seemed at first merely surprised; then his mind wandered away into some old apocryphal story, which turned out to relate to an unexpected legacy; then he sympathised with the poor bankrupt, whose poignant feelings of distress had been alluded to in the intimation of his misfortune; then there rose before him, like twin spectres, the dependent condition of Sara till she was of age, and the commission which never could be Robert's; and then, last of all, came the puzzlement as to how to accommodate his expenses to his shrunken income. Elizabeth contributed to his relief a declamation on the propriety of submitting tranquilly to the dispensations of Providence; and Sara, although she appeared to comprehend more clearly than either of them the grave circumstances in which they were placed, could do nothing more than give forth a burst of wishes that she was twenty-one, and able to enrich her uncle with her fortune. Fortunately, however, Miss Heavystoke was at hand. This lady, although a good mechanical governess, was not intellectual, or even clever, but she was well up in that science of the world which may be acquired even by the narrowest natures. She saw, as if by instinct, what was necessary to be done, and how to do it; and it was surprising how implicitly the captain gave himself up to her guidance. On one point, however, he was inflexible: he would not consent to let the Lodge, and retire to a cottage. It was his own property, he said, and at his death it would be Elizabeth's. Let her do what she would with it; but for his part, though willing to make any other sacrifice, he would live and die in his own house. It was arranged, therefore, that a general reduction of the expenses should take place; that the servants should be dismissed, and a strong countrywoman got to do the work of all three; and that the governess herself should seek elsewhere the salary which Captain Semple could no longer afford to pay. This last proposal Miss Heavystoke made in the same practical matter-of-course tone as the rest.

When all this was agreed upon, the only difficulty that remained—and the captain felt it to be the grand one—was the settlement of Robert in the world. He had pledged himself to buy him a commission in the army, but the pecuniary accumulations made for this purpose were not nearly sufficient. What was to be done with the unfortunate lad?

'Make him an usher,' said Miss Heavystoke; 'his letters are exactly like those I used to write home to my brother from the boarding-school; and I should say he is just cut out for the scholastic profession.'

'I doubt that, madam,' said the captain; 'a governess is another thing: it is a ladylike situation, and suited for a lady; but the task of flogging a parcel of fellows is only fit for a drummer—for a drummer, madam: I could tell you a good story about that.'

'He will be an author or an artist!' exclaimed Sara. 'He will teach men, dear Miss Heavystoke, not boys, and will leave the impress of his intellect on the soul, not the memory.'

'An author!' repeated the captain indignantly, 'and live in a garret, sleep on a bulk-head, and be choked with a penny roll! Never! Better that he had eaten no bread of mine—better that he had been lost in the mist—that he had been left in the Gravel Pits—that he had even been sent to the workhouse! Poor lad,

poor lad, what is to become of him!' This thought appeared to distress the captain much, and for several days it was obvious he was thinking of nothing else. It was necessary, however, to take Robert from school at once, for this was the vacation, and a new term could not be suffered to commence. Sara was therefore commissioned to write to him of what had occurred, and request his immediate return home; and the veteran appeared to derive satisfaction from the idea that the whole affair would be broken to him tenderly before he saw his protégé face to face.

Sara, like many young women, had a considerable facility in letter-writing; but, on the present occasion, she found her task a difficult one. Her epistle ran thus:—

'MY DEAR ROBERT—I have no heart to thank you for your late beautiful letter, or to tell you how little I have been able to benefit by it; for a very sad affair has occurred here within the last week, and an affair, I am sorry to say, that will require you to look out for some new path to fame and fortune. But why should I be sorry to say this? The army was not your own choice, and ever since I began to think and to reason, I have persuaded myself that a mind like yours was fitted for a nobler field than that of war. Not that I despise a military uniform, for I think it very charming; but you know, after all, it is only a livery—a badge of servitude—and the mercenaries who wore it first were looked upon with dislike and disdain by the generous warriors of old.

'You are aware that I could not have written this if my letter was to receive its usual supervision; and you may conceive, therefore, the state of confusion that reigns in King Agramant's camp. The cause, you will be grieved to hear, is the failure of a private agent—a circumstance which will curtail very considerably my dear uncle's income. All sorts of expenses are to be reduced; the three servants are to be exchanged for one; and you and I are to bear our share of the calamity. You are to be removed from your studies, and my governess, dear Miss Heavystoke, is to be dismissed. My uncle bears up like a man—in all things save one. He is distressed to think that the fund intended for the purchase of your commission is quite inadequate, and that you will be compelled to lay it out in opening for yourself some other path of life.

'Come home, then, at once, dear Robert, and let us all lay our heads together, and see if we cannot contrive something for the good of the whole. I am ashamed to tell you of how little use your poor pupil has been in the emergency—how mere a child I found myself when brought for the first time into contact with the business of life. Had it not been for Miss Heavystoke, I don't know what would have become of us. Come home; your presence will be a great comfort to my dear uncle and aunt.—Always your faithful friend, and grateful pupil,

SARA.

'P.S.—I was called away, while about to seal my letter, by a disturbance in the hall; where I found Molly and the captain, the former with her rich cheeks deluged with tears, plaintively entreating to be kept, and declaring that she was as strong as any cart-horse, and would work like two. No mediation of mine was required; for my darling Ogre told her in a gruff voice, broken with feeling, to get away with her for a pest, and dry her ridiculous eyes, and stay till doomsday if she liked. I am so glad! Poor Molly!'

On the third morning from the dispatch of this letter, as the captain and his sister were standing at the parlour window scanning the weather, they observed a gentleman crossing the common from the village. It was not one of the neighbours. Could it be Robert? No: there was hardly time for an answer by return of post; and besides, Robert was only a lad, and this was a gentleman grown. But as he came nearer, the grown gentleman waved his hat; and the brown hair, lifted by

the wind from the pale brow, shewed that it was Robert indeed. The captain ran out to the hall and opened the door himself; and his protégé, clearing the road with a light run, was in his arms in an instant. Elizabeth's greeting was as cordial for her undemonstrative nature; and as the young man stood in the parlour holding a hand of each, the flush of emotion mantling over his cheeks, and his calm deep eyes lighted up with affectionate joy, his two protectors looked at him with surprise as well as love.

Robert Oaklands had, in fact, filled out into a remarkably fine young man. He was somewhat above the middle height, and of rather a robust than delicate make. His features, although sufficiently regular, owed more to expression than to regularity, a soft, harmonious light seeming to be diffused over them by the contemplative eyes. In his pose, and in his whole manner, there was that air of calm and dignified self-possession which, although it sometimes comes from nature, is more frequently the result of habitual intercourse with refined society, and is justly regarded as one of the grand external distinctions of a gentleman.

'And Sara!' cried he at last, 'where is my dear little friend—my pupil, as she calls herself?'

'There she is all the time,' said the captain, 'as large as life!' and Robert, sweeping round, would probably have caught her in his arms if he had not been arrested by astonishment. Sara was, like himself, older in appearance than her years, taller than the middle height of woman, and her exquisitely proportioned figure had nothing of the attenuation which bespeaks fragility rather than delicacy. Her face, however, in former days so thin and pale, was what struck him with the most surprise. Her features, although such as were chiseled by the genius of the old sculptors, had been awakened into life and love by influences unknown to the antique world; and her ingenuous but modest eyes had a light which seemed welling from some fountain of thought within. Half stepping forward to welcome her early friend, half arrested by surprise at finding him so much older, so proud-looking, so altogether different from what she had pictured, her finely developed figure presented a perfect model of womanly grace; rendered still more interesting when his astonished and admiring gaze sent a crimson flush of beauty at once over face, brow, neck, and shoulders. But when she did move in advance, ashamed of the awkward feeling she was conscious of in herself, and bashfully observed in him, the picture was complete. Till a woman is in motion, it is impossible to be sure of what she is in reality. Before, it is only our own imagination that lends her the finished charm we profess to admire. Thus, when Æneas, wandering in the wood, is accosted by Venus, although seeing at a glance that she is not of the common mortal nature, he does not recognise her as the goddess of beauty till she moves: *Vera incessu patuit dea*—

And by her graceful walk the queen of love is seen.

The mutual observation passed in a few seconds, although it has taken so many words to describe it; and then Robert, recovering from his surprise, took hold of his young friend's extended hand, and instead of kissing her, as he probably intended to have done, raised it, gravely but affectionately and admiringly, to his lips.

It was Robert's intention to have paid on this occasion only a very short visit to his patron's house, to which Sara in her letter had given the name of *home*—a word which thrilled the poor lad to the very centre. But circumstances prolonged his stay. He found himself useful—almost indispensable in saving the captain from pecuniary outlay. There were a thousand things to do about the house and garden, and the ready, ingenious, and untiring young man was mason, carpenter, and gardener in one. He would brook no interference,

however, with the amusements, such as they were, of Simple Lodge. He pitted Elizabeth and Miss Heavystoke against each other in an argument, which he then perplexed by his remarks, and made just sufficiently ridiculous to puff out Sara's ripe cheeks with suppressed laughter, without awaking the suspicions of the belligerents; he played chess and fenced by the hour with the captain; and danced as far into the night with Sara as she would permit, Miss Heavystoke being now the performer on the piano. On these occasions he sometimes insisted on having Molly up as of yore; and she now made an admirable partner for the stiff and phlegmatic chair. Molly, be it said, was grown a fine young woman, with a nose as broad, flat, and good-humoured as you shall see on a summer's day, and great round eyes that were not merely astonished themselves, but the cause of astonishment in others—as the son and heir of the village-baker could testify. But after getting through all this business, Robert was up and at work with the first gleam of daylight.

Perilous work it was for the retired and generally abstracted student, who thus called back the recollections of his boyhood to cheer sufferers so dear to him!—Perilous work for the learned ignoramus, who had never spoken freely to another young woman in his life, and who now found in the one he was thrown into hourly companionship with, a mind that seemed a dinner reflection of his own, and was the more piquant from its comparative dimness, and an external form, looking a congenial temple for the ideal beauty that haunted him like a passion! And all the more perilous was this companionship for its frank, domestic character. The feelings excited in formal society are no more genuine than its own aspect. They are founded on a prophecy, almost always a false one, of what the woman could and would be at home—a gay, sad, steady, froward, strong, ailing, laughing, weeping sister of humanity—lovely in her smiles, lovely in her tears, and beloved in all.

But the day was at length at hand when the domestic changes that had been determined on were to take place; and on that day Robert, as well as the governess, the footman, and the cook, was to bid adieu to Simple Lodge. In the forenoon previous, having finished his work in the garden, he went into the parlour in his shirt-sleeves, to say a word to the captain before going up stairs to resume his coat. The captain was not there. No one was there but Sara—and another. The two were sitting close together; and when he appeared at the door, Sara flushed up to the eyes, averting her head for an instant, while her companion looked full at the intruder, a blaze of triumph lighting up his face.

Robert's brow, glowing from hard work, grew slightly pale. He hesitated for a moment, but then walked calmly in, and bowed slightly to the visitor.

'I expected to find the captain here,' said he to Sara.

'He is gone out. Allow me to introduce you to'—

'That is unnecessary. Mr Seacole and I know each other sufficiently well.'

'You surprise me. You did not mention this, Mr Seacole?'

'Because I did not know that you were specially interested in any of my schoolfellows: indeed,' and he hesitated as if from delicacy—'I thought the name might possibly be embarrassing to you.'

'Why so?' demanded Sara imperiously, and bending her flashing eyes full upon him. 'Robert Oaklands was my early friend and playfellow here at home; when at school, he was my untiring correspondent and instructor; and in this day of calamity, he has been the support and solace of us all.'

'He is happy in your approbation, Miss Sara,' said Seacole meekly. 'He is no doubt laudably anxious to shew his gratitude to his patron's family; and his only mode of doing this is by the performance of such manual labour as he is acquainted with. The services,

doubtless, are gratuitous. He was a good worker, too, at school.

'And a good debtor, likewise, Seacole,' said Robert, with a sarcastic smile; 'you know I always repaid the favours I received!'

'I took no account of your payments,' replied Seacole, flushing; 'but I repeat,' he added, in a tone of suppressed passion, 'that it is nothing more than your duty now to repay with your manual labour the goodness of a gentleman who rescued you from the life of a vagrant!'

'Oh, Mr Seacole!' cried Sara, springing from her seat, and looking with terror at Robert.

'Be tranquil, Sara,' said Robert, with a faint smile: 'he speaks nothing more than the truth—a truth that is known to you, to the whole neighbourhood; and, I need not now tell you, to the whole school.' He walked up to the window, and looked steadily out upon the common. What phantasmagoria passed there before his mind's eye, we need not tell; what wild and desperate figures came trooping across, as the mist tumbled and thickened around them; what poor little ragged boy lagged behind, till he stood alone—alone—in the middle of the waste, and was covered over by the vapour, as if with a pall. Robert turned away from the window, calm and pale.

'You have once more taunted me with my origin, Seacole,' said he: 'do you forget that at school it did not prevent me from being your Master—in play, in study, in fight, even in number of adherents?'

'You will find the field of the world different,' replied Seacole—'in its weapons, as well as in everything else. It is there we must now meet, if your walk be high enough.'

'Why, I will see thee at Philippi, then.' And with this quotation, Robert, bending his head slightly to both, left the room.

That evening was a comfortless one at Simple Lodge. It was not worth Miss Heavystoke's while to begin a new argument with Elizabeth, even if the latter had been in good enough spirits, and they both sat silent. The captain was gloomy and disconcerted; for Robert had obstinately refused to take more than a very trifling portion of the fund collected for his own behoof, and his patron could not conceive how the young man was to keep himself afloat in London, even for a few weeks, till he should get into employment. Sara, agitated with a profound emotion she could not analyse, was mute and pale; and once when, at her uncle's request, she had drawn the window-curtains aside, to look at the appearance of the night, and had thrown a glance at the black sky beyond the desert common, she fixed upon Robert a long, terror-stricken gaze, and sank into her chair, forgetting to make the report, which the captain forgot to ask for. Robert alone was calm and firm. Robert alone forgot nothing.

The next day the silence of the Lodge was broken. A hired gig came and carried off Miss Heavystoke. Then the baker's light cart drove up to the side of the house, and received the portly person of Mrs Margery; the captain, who was standing at the parlour window, striving in vain to obtain a view of more than the reverse part of this mysterious figure. Then came forth two lads, bearing staggeringly along a great hair-trunk, on the top of which Mr Poring laid his hat-box, greatcoat, and umbrella, following it himself with dignity, burdened with nothing more than his cane. Lastly, Robert Oaklands appeared, with a flushed face and glistening eye; and swinging upon his shoulder his portmanteau, which awaited him at the door, he crossed the road, and took his solitary way through the common. The captain stood looking out of the window long after he had disappeared. Elizabeth sat in her customary chair, staring at the blank wall, her work lying in her lap, and her idle hands crossed over it. Sara was kneeling at her own little lattice, following

the solitary figure upon the common, her eyes half-blinded with tears, which, when it had disappeared, were accompanied with passionate but inaudible sobs. There was silence in Simple Lodge, broken at intervals only by a voice of lamentation from the kitchen—the burden of Poor Molly.

## THE MONTH:

### THE LIBRARY AND THE STUDIO.

#### THE LIBRARY.

THE principal feature of the literature of last month is undoubtedly the unprecedented shower of Christmas illustrated books which was poured upon the metropolis, and from hence over the whole kingdom. Formerly, a few annuals—the *Keepsake*, the *Picturesque*, the *Amulet*, the *Forget-me-not*, and the *Book of Beauty*—were the only literary and artistic offerings to the Christmas-tide; but this season has been characterised by the outpouring of at least a couple of hundred Christmas-books, by far the greater proportion illustrated. It seems, indeed, that not only as regards Christmas-books, but in respect to the ordinary literature of the day, we are fast verging to a state of universal pictorial illustration. Neither is it the bibliopoles, whose special department is works of art and engravings, that are the main promoters of this revolution. Even the sober Longmans and the majestic Murray have caught the infection, and both are issuing illustrated works. The times are, indeed, brave for artists on wood, both with the pencil and the graver. As to the literature of these books, many of them, we are happy to say, are standard works, or meritorious new ones; but one large portion is trash of the most puerile description, whilst another is composed entirely of children's story-books, mostly taken from the Swedish or the German. These tales are frequently connected with animals in the quaint Teutonic style, and they sometimes contain a good deal of odd and eccentric fancy; but, after all, we cannot but think that the fashion of writing down for children is too generally pursued. A smart child cares very little for conventional stories about Tommy and Sophy, and of being put in the corner, or sent supperless to bed. Why not try narratives of adventure, or striking passages of history, particularly of the mediæval and chivalric periods? We warrant you that Jack and Fanny would fling Tommy and Sophy into the corner, if they were introduced in a simple form to Joan of Arc leading on the chivalry of France, or to Charles II. hiding in the oak.

But we must turn from Christmas fare to the ordinary literary dietary of the month, which includes several sound and interesting works, with the usual quantum of those that are neither one nor other.

The biographies of Thomas Moore and Edmund Burke shew how little great men may be in private life. Moore is revealed in all his pettiness of character—his constant absence from the domestic circle, his incessant toadying of the great, his weak procrastinations, and his insane love of empty pleasure. This man, who had made scores of thousands by his pen, died a pensioner on the Marquis of Lansdowne.

As for Burke, the mystery of his early life is solved by the fact, that his brothers were great and successful gamblers in Indian stock; that Edmund shared the spoil; that he withdrew great sums from speculation; and that he was the proprietor of the Gregories' mansion and estate in Ireland, and of the Beaconfield mansion and estate in Buckinghamshire, when his brothers, ruined in the smash of Indian stock, were bankrupt and penniless. We have only to add, that the present biography was copied by wholesale from a memoir by a Dr Bisset, which and whom the plagiarist had perhaps fondly hoped had fallen into oblivion.



A *Life of Martin Luther*, contained in fifty drawings, artistic and expressive, and of course decidedly Teutonic, by Gustav König, the illustrative text by a Mr Gezier, written in paragraphs descriptive of each picture, forms one of the prettiest of the illustrated volumes of the season. The life is followed by a sketch of the Reformation, intended to supply the links between the events recorded by the pencil of Herr König.

Another illustrated volume is a reprint of an old series of *Picturesque Views in England*, by Turner, and an artist whose name is too much forgotten—Girtin. This Girtin was Turner's early friend, and his teacher in the art of water-painting. Girtin, however, who was of a delicate constitution and social habits, died young—at twenty-seven years of age; Turner, who was the very reverse in both points, died at a good old age. The plates, which, from their rarity, were frequently picked up at comparatively great sums by collectors, do not seem to us worth sixpence apiece. The best part of the work is the biographical sketch of Turner, exposing, in a number of pithy and highly characteristic anecdotes, his insufferable meanness, and his misanthropic perverseness. The sketch is drawn up by Mr Thomas Miller.

Mr Macaulay's indignant letter regarding Vizitelly's edition of his speeches, has been replied to by that gentleman, who states that he had nothing to do with the getting up of the edition; that the speeches had been copied from *Hansard*; and that he should prosecute Mr Macaulay for slander. There was a passage in Mr Macaulay's letter, which will afford unmixed pleasure to a host of his admirers. Reports had got abroad that, from bad health, he was relaxing in his great work. Now, here we have the assurance that Mr Macaulay, in order to prepare, which he was very unwilling to do, an edition of his speeches, suspended with great regret the publication of 'that work which was the business and the pleasure of his life.'

Two works have been lately published—one within the month—in both of which Benjamin Disraeli is mentioned. In the first instance, the name occurs in the dedication of a couple of volumes by Miss Disraeli to her brother, which, as they consist of an unintelligible rhapsody about Mendelssohn and music, may be passed without more words. In the second, we have a political biography of the ex-minister, written for the purpose of displaying him in the least favourable light, every redeeming feature of his character being suppressed. It is a pity to have treated this subject in so partial a tone, because it certainly affords opportunity for an impressive lesson regarding the consequences of a career in which mere selfish ambition has been the main impulse. There was lately a paragraph in the newspapers, giving the recollection of a school-companion as to a resolution expressed in early life by Mr Disraeli to become a famous man. *There was a text for a judicious writer!* a youth enters upon life with the resolution to be great or famous. He makes himself be talked of or wondered at only. Had he set out with the design of accomplishing some great good for his fellow-creatures, with no thought of fame or greatness for himself, he would have obtained, with equal fame, a true happiness, instead of something little better than entire disappointment.

#### THE STUDIO.

The attention of artists is at present naturally directed to the report and the evidence taken by the select committee in the National Gallery. The recommendations of that committee seem to us limited, meagre, and unsatisfactory. It recommends a continuation of management by trustees—a system which has been found quite inefficient—and then contradicts itself by recommending that, as the trustees die off, the vacancies shall not be filled up. The trustees are

recommended to be appointed by the Treasury; but what does the Treasury know about art or its professors? A salaried director is recommended to be appointed—we presume to select the new pictures which he thinks ought to be bought—a system practised in almost every gallery on the continent. Selection, however, according to the report, is to end his powers. The purchase is to be decided on by the trustees; but how are trustees to decide when, by the inevitable operation of nature, there are no trustees? Two of the best of the recommendations are—that a fixed sum be annually voted by parliament for the purchase of pictures; and that the present site not being well adapted for the erection of a new gallery, Kensington Gore, on ground which had been offered to the nation by the royal commissioners of the Great Exhibition, be chosen for the purpose. Still, all these are but matters connected only indirectly with art. The art-world and the country call for a great institution on the most liberal scale—for schools of drawing, painting, sculpture, open at the smallest practicable fee; for models, specimens of every species of art; for the best teachers, and plenty of them; for the extension of the associates to any number that might be deemed proper; and for the election of new members by the general body. It has been even proposed to intrust the election of the academicians to the associates. At present, that body is nothing but a rotten borough; and it is notorious that every one of the associates is capable of producing finer works than a certain twenty which might be named of the academicians, who, confident of having their pictures hung, take no pains to strike out new conceptions, but have sunk down into a conventional school of contented mediocrity. These are the days of the reforms of institutions, and we confidently expect that the National Gallery and the Royal Academy will come in for a sweeping share.

A question imported from Italy relative to painting marble statues, and which is at present being much debated in the sculptor world, is one which we hope the good sense and good taste of English artists will never permit them seriously to entertain. An admirable protest against the system and its upholders has been written and published by Mr Power, the American sculptor, with every word of which we fervently concur. The gist of his argument is, that sculpture has to do with form, and nothing but form; that the spirit, the soul of the statue, is to be indicated by the nobleness of its expression and the grace of its attitude; while, if coloured, it would convey the gross idea of flesh, and in an instant the goddess would wither down to a mortal. The spirit, instead of residing in noble proportion and tenderness, or majesty of expression, would be degraded into something closely connected with the sensuous, dependent for its existence on the free play of blood and the unimpeded action of certain fibres. In pictures, these ideas are not excited; but from the incongruous junction of two anomalous arts, they undoubtedly are so. The advocates of coloured sculpture contend that the tints would be made exceedingly light; that the hair would be adorned with a bright golden hue, like that of the Venetian Madonnas; that lightly purple veins of a hair's breadth should wander over a pearly skin, the whole to be viewed under a subdued medium—green or blue light, we should not wonder—with a gauze between the object—in the worst sense of the word—and the spectator. Such are the miserable tricks which a certain clique would have art submit to. Let such persons become artists to the representatives of Madame Tussaud—that is their proper element—or paint the spotted dogs and the green parrots that English venders of English art carry on their heads on boards!

Pre-Raphaelitism is dying out. Good sense has prevailed in spite of Mr Ruskin. Those who liked flat men and women, flat towers, flat hills, flat

everything, with no perspective whatever, but leaves and vegetation at twenty yards' distance, painted as though they were at twenty inches' distance, must make such monstrosities for themselves. The leaders of the movement—Mr Millais and Mr Holman Hunt—are rapidly returning to reason. The former has painted a scene in the Trossachs, in which Mr Ruskin is introduced gazing at the rainbow in the spray of a waterfall. We have reason to believe that Mr Millais and others consider this painting as the finest of his works; Mr H. Hunt, we hear, is engaged upon a Scripture subject from the Old Testament; Mr Dyce is at present at work in painting the frescos in the beautiful church of St Margaret, Margaret Street, near the Polytechnic. For a wonder, Mr Ruskin praises this church, the spire of which is certainly one of the noblest we have ever seen—wonderfully light, and exquisitely proportioned. It has got among artists the name of 'Beauty.' Mr Ruskin writes that there is no Gothic artist in England, save the architect of Mr Hope's church, in Margaret Street, 'which challenges fearless comparison with the noblest work of any time;' and in which, 'if either Holman Hunt or Millais could be prevailed upon to do even at least some of the smaller frescos, the church would be perfect.' Another favourite of Mr Ruskin's is Mr Watts, an able fresco painter; and it is whispered that some unpleasantness has occurred between Mr Ruskin and Mr Dyce, by the former in one of his volumes placing Mr Watts as an artist above the latter—one of Mr Ruskin's unaccountable whims.

Art has lost a patron and a professor—Mr James Wadmore, and Mr G. P. Harding. Both died at the same age—seventy-three. Mr Wadmore's face was well known at all private views, and he was always seen amongst a group of contemporaries. He was also a great frequenter of the studios, and a ready buyer, when his judgment, which was excellent, was satisfied. His collection of Turners is said to be extensive and choice. It is rumoured that the gallery will be sold. Mr G. P. Harding may be recognised as the indefatigable copier of family portraits; hardly an historical portrait-book exists without his name being upon a corner of the plate. His life was not a prosperous one, but he laboured on steadily and faithfully, and increased his annual income by periodical sales of his works.

#### PROGRESS UNDER DIFFICULTIES.

The establishment of the Royal Society was opposed because it was asserted that 'experimental philosophy was subversive of the Christian faith; and the readers of Disraeli will remember the telescope and microscope were stigmatised as 'atheistical inventions which perverted our organ of sight, and made everything appear in a false light.' So late as 1806, the Anti-vaccination Society denounced the discovery of vaccination as 'the cruel despotic tyranny of forcing cow-pox misery on the innocent babes of the poor—a gross violation of religion, morality, law, and humanity.' Learned men gravely printed statements, that vaccinated children became 'ox-faced,' that abscesses broke out to 'indicate sprouting horns,' that the countenance was gradually 'transmuted into the visage of a cow, the voice into the bellowing of bulls'—that the character underwent 'strange mutations from quadrupedan sympathy.' The influence of religion was called in to strengthen the prejudices of ignorance, and the operation was denounced from the pulpit as 'diabolical,' as a 'tempting of God's providence, and therefore a heinous crime;' and its abettors were charged with sorcery and atheism. When fanatics were first introduced to assist in winnowing corn from the chaff by producing artificial currents of air, it was argued, that 'winds were raised by God alone, and it was irreligious in man to attempt to raise wind for himself and by efforts of his own.' A route has just been successfully opened by Panama between the Atlantic and Pacific. In 1588, a priest named Acosta

wrote respecting a proposal then made for this very undertaking, that it was his opinion that 'human power should not be allowed to cut through the strong and impenetrable bounds which God has put between the two oceans, of mountains and iron rocks, which can stand the fury of the raging seas. And, if it were possible, it would appear to me very just, that we should fear the vengeance of Heaven, for attempting to improve that which the Creator, in his Almighty will and providence, has ordained from the creation of the world.' When forks were first introduced into England, some preachers denounced their use 'as an insult on Providence, not to touch our meat with our fingers.' Many worthy people had great scruples about the emancipation of the negroes, because they were the descendants of Ham, on whom the curse of perpetual slavery had been pronounced. Many others plead against the measure for the emancipation of the Jews, that the bill is a direct attempt to contravert the will and word of God, and to revoke his sentence upon the chosen but rebellious people.

—Abridged from the *Scottish Review*.

#### RETROSPECTION.

FOR A SWEDISH AIR.

Winds in the trees  
Chant a glad song;  
O'er fields the bees  
Hum all day long:  
Night lulls the breezes, the bees' hum is o'er—  
Nature, like *thee*! changes evermore.

But sunshine bright  
Wakens the bees:  
Airs warm and light  
Stir the young trees:  
Morn is returning with joy-laden store—  
*Thou* wilt return to me—never more!

#### A BRIDGE IN CASHMERE.

The bridge over the Jhelum is not a couple of hundred yards from the Fort of Oorie, though considerably lower, and is not more than from thirty to forty yards long. The two piers are of equal elevation—that is to say, from the water—and are constructed of wood and unheun stone. The bridge itself is entirely made of *twigs*, and the bushes which are despoiled for this material grow close to the banks of the river. These twigs are twisted into ropes of an inch and a half or two inches in diameter, and three or four of these twig-ropes form each of the sides of the bridge. The flooring of the construction is of twigs formed into ropes, and placed lengthwise from pier to pier, across the gulf. The width of this footway is about six inches, just enough for a passenger to walk across, putting one foot before the other. The side twig-ropes are about three feet high. Short ropes join the sides to that part of the bridge where the passenger walks across; but these twigs are two and three feet apart, and the trembling wayfarer has plenty of opportunity to gaze at his leisure on the roaring flood, a few yards only beneath his feet, dashing madly on! However, I have seen many worse bridges of the kind; and the one below Khöksur, in Lahoöl, is twice as long and twice as frightful. The longer the bridge is, the more sickening is the swinging to and fro of the frail construction.—*Mrs Hervey's Adventures.*

CHAMBERS'S REPOSITORY OF INSTRUCTIVE AND AMUSING TRACTS.—This Illustrated Work resembles in some respects the MISCELLANY of Tracts published a few years ago, aiming at a higher, though not less popular tone, and will satisfy, it is hoped, the new requirements of the day in regard to literary elegance—the papers being original compositions, prepared expressly for the work by popular and practised writers. A Number appears every week, a Part every month, and a Volume every two months. Eight volumes (1s. each) have now appeared.

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